REMARKS/ARGUMENTS

This Amendment is being filed concurrently with a Request For Continued Examination (RCE), in response to the final Office Action of December 8, 2005.

Claims 1-6 were pending in the application. By this amendment, claims 1 and 3-5 are being amended and claims 2 and 6 are being cancelled, to advance the prosecution of the application. No new matter is involved.

In paragraph 5 which begins on page 2 of the final Office Action, claims 1 and 2 are rejected under 35 U.S.C.§ 103(a) as being unpatentable over Applicants' admitted prior art in view of USPN 6,354,909 of Boucher et al. In paragraph 5 which begins on page 3 of the final Office Action, claims 3, 4 and 6 are rejected under 35 U.S.C.§ 103(a) as being unpatentable over Applicants' admitted prior art in view of Boucher and further in view of USPN 5,461,008 of Sutherland et al. In paragraph 5 which begins on page 4 of the final Office Action, claim 5 is rejected under 35 U.S.C.§ 103(a) as being unpatentable over Applicants' admitted prior art in view of Boucher and Sutherland, et al. and further in view of USPN 6,454,190 of Cook. Claims 2 and 6 are being cancelled. These rejections are respectfully traversed with respect to claims 1 and 3-5, and particularly in view of claim 1 as it is amended herein. The amendments to claim 3-5 are simply to make them depend from claim 1 in view of the cancellation of claim 2 herein.

A characteristic feature of the present invention is the maintenance of an insulating resin at a temperature lower than a softening temperature and use of a coolant having a pH value ranging from 6 to 8 in the cutting of a semiconductor substrate.

Performing the cutting while cooling a dicing saw and a cutting portion such that they are maintained at a temperature lower than the softening temperature of

the insulating resin enables, for example, the prevention of molten resin from adhering to the machined surface or the dicing saw. Further, using a coolant having a pH value of 6 to 8 enable suppression of corrosion of an end portion 26 of an internal wiring 24. This avoids generation of sufficient un-evenness on the surface of the end portion 26 of the internal wiring 24, so that a metal wiring 28 can be deposited thereon in such a way that it is not easy to peel.

In contrast, Boucher et al. and Sutherland et al. describe use of a coolant having a pH value of 3.5 to 5.5, but they do not include a description or suggestion of using a coolant having a pH value of 6 to 8 when cutting a laminated structure including an insulating resin. Moreover, Cook only discloses a cooling system wherein cooling is performed simply by applying mist, and does not include description or suggestion relating to a dicing saw.

As amended herein, claim 1 is submitted to clearly distinguish patentably over the prior art. The claim defines a semiconductor device manufacturing method including first, second, third and fourth steps. The second step is performed while cooling the dicing saw and a cutting portion to be maintained at a temperature lower than the softening temperature of the insulating resin "by spraying a coolant having a pH value ranging from 6 to 8 on the dicing saw".

Claims 3-5 depend from and contain all of the limitations of claim 1, so as to also distinguish patentably over the prior art.

In conclusion, claims 1 and 3-5 are believed to be in condition for allowance for the reasons set forth above. Therefore, reconsideration and allowance are respectfully requested.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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